Internship Training

at

Nayati Medicity Hospital, Mathura UP

"A COMPERATIVE TIME MOTION STUDY OF PATIENTS DISCHARGES PROCESS TOWARDS SUSTAINABILITY OF QUALITATIVE EDGE BY A MULTI SUPER SPECIALITY HOSPITAL: AN OBSERVATIONAL & RETROSPECTIVE STUDY & ANALYSIS"

15TH Feb to 25TH May 2019

By

Ms. Shalini Singh

Enroll. No. PG/17/055

Under the guidance of

Pankaj Talreja

Asst Prof, IIHMR, Dwarka,New Delhi

Post Graduate Diploma in Hospital and Health Management

2017-19

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NAYATI
HEALTHCARE

The certificate is awarded to

Ms. Shalini Singh

In recognition of having successfully completed his/her internship in the department of

OPERATIONS AND QUALITY

And on successfully completing her Project on

"A COMPERATIVE TIME MOTION STUDY OF PATIENTS DISCHARGES PROCESS TOWARDS SUSTAINABILITY OF QUALITATIVE EDGE BY A MULTI SUPER SPECIALITY HOSPITAL: AN OBSERVATIONAL & RETROSPECTIVE STUDY & ANALYSIS"

15TH Feb to 25TH May 2019

At

Nayati Medicity Hospital

Mathura, Uttar Pradesh

She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

Chief Operating Officer

AGM-Human Resources

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Shalini Singh** student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Insitute of Health Management Reaserch, New Delhi has undergone internship training at **Nayati Medicity Hospital, Mathura UP from 15TH Feb to 25th May 2019.**

The Candidate has successfully carried out the study designed to her during internship training and his/her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements. We wish her all success in all her future endeavors.

Dr. Pradeep K Panda
Dean Academics and Student Affairs
IIHMR, New Delhi

Dr. Pankaj Talreja
Assistant Professor
IIHMR, New Delhi

Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Shalini Singh**, a graduate student of the Post- Graduate Diploma in Health and Hospital Management has worked under our guidance and supervision.

He/ She is submitting this dissertation titled **"A COMPERATIVE TIME MOTION STUDY OF PATIENTS DISCHARGE PROCESS TOWARDS SUSTAINABILITY OF QUALITATIVE EDGE BY A MULTI SUPER SPECIALITY HOSPITAL: AN OBSERVATIONAL & RETROSPECTIVE STUDY & ANALYSIS" at**

Nayati Medicity Hospital, Mathura, Uttar Pradesh

In partial fulfillment of the requirements for the award of the Post-Graduate Diploma in Health and Hospital Management.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monography, report or book.

Dr. Pankaj Talreja

Assistant Professor

IIHMR, New Delhi

Dr. Ajay Angirish

Chief Operating Officer (COO)

Nayati Medicity Hospital

Ravibrata Singh
AGM-HR
On Behalf of Dr Ajay

Certificate of Approval

The following dissertation titled

"A COMPERATIVE TIME MOTION STUDY OF PATIENTS DISCHARGES PROCESS TOWARDS SUSTAINABILITY OF QUALITATIVE EDGE BY A MULTI SUPER SPECIALITY HOSPITAL: AN OBSERVATIONAL & RETROSPECTIVE STUDY & ANALYSIS"

at

Nayati Medicity Hospital, Mathura, Uttar Pradesh

Is here by approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of Post Graduate Diploma in Health and Hospital Management for which it has been submitted. It is understood that by this approval the undersign do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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Dr Madhulekha Bhattacharya	MBhattya
Dr Nitish Dogra	
Dr. Pankaj Talreje	

IIHMR DELHI

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT REASERCH, NEW DELHI

CERTIFICATE BY SCHOLAR

This to certify that the dissertation titled

"A COMPERATIVE TIME MOTION STUDY OF PATIENTS DISCHARGES PROCESS TOWARDS SUSTAINABILITY OF QUALITATIVE EDGE BY A MULTI SUPER SPECIALITY HOSPITAL: AN OBSERVATIONAL & RETROSPECTIVE STUDY & ANALYSIS"

Submitted by **Ms. Shalini Singh**

Enrollment No **PG/17/055**

Under the supervision of Dr. Pankaj Talreja, Asst. Professor IIHMR,New Delhi for award of Postgraduate Diploma in Hospital and Health Management of the institute carried out during the period from 15th Feb to 25th May 19 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other institution of higher learning.

Shalini Singh

Signature

Ms. Shalini Singh

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I also take this opportunity to extend heartfelt gratitude to others who directly or indirectly helped me, by providing necessary information required for the successful completion of the project.

Shalini Singh

ABSTRACT

"Discharge Process" is one of the vital functions in the health care organization that needs to be streamlined and monitored on a regular basis. Discharge of patient from the Hospital means, relieving a person from Hospital setting after addressing the healthcare needs of the patient. Appropriate Discharge Process plays an indispensible role in providing quality care services to the patient. There are a number of factors that impact patient experience and a smooth Discharge Process will lead to increase in Patient Satisfaction and quality of service delivery. The **Objectives of this study are** to bring down the current TAT within the define limit (Cash, TPA & Panel as 2hours, 4hours & 2hours) in Nayati multi super specialty hospital, Mathura (UP) and to identify reasons which causes delay in the discharge process. **Methods** Non probability convenience sampling, Retrospective and Observatory study was conducted in the form of Discharge trackers from Discharge intimation to patient is getting physically out from the respected ward. 100% data have been collected with the help of trackers at Nayati multi super specialty hospital, Mathura (UP). **Results are** Up to 80% patients were taking >4hours in getting discharged in January, February and March and after intervention by quality department in April the discharges were decreased by 80% in May and 80% of the patients gets planned discharge. **T**he results indicated that most of the procedures for discharge process have got streamlined. Further work needed to close gap. The overall planned discharges have been improved by 80% and only 30% of the patients are getting unplanned discharge.

Conclusion: Delayed Discharge process leads to unnecessary bed occupancy, thus affecting both, the existing patients to be discharged and the new admissions in the hospital thereby putting undue pressure on the already strained resources of the hospital. Thus the study helps to bring out the areas which need further improvement and devises a workout plan for the same. Thus, the study details out the essential aspects of the discharge process, identify sources of errors that can impact on outcomes and give recommendations to re – engineer the same for improved efficiency.

PART-A

INTERNSHIP REPORT

ABOUT NAYATI

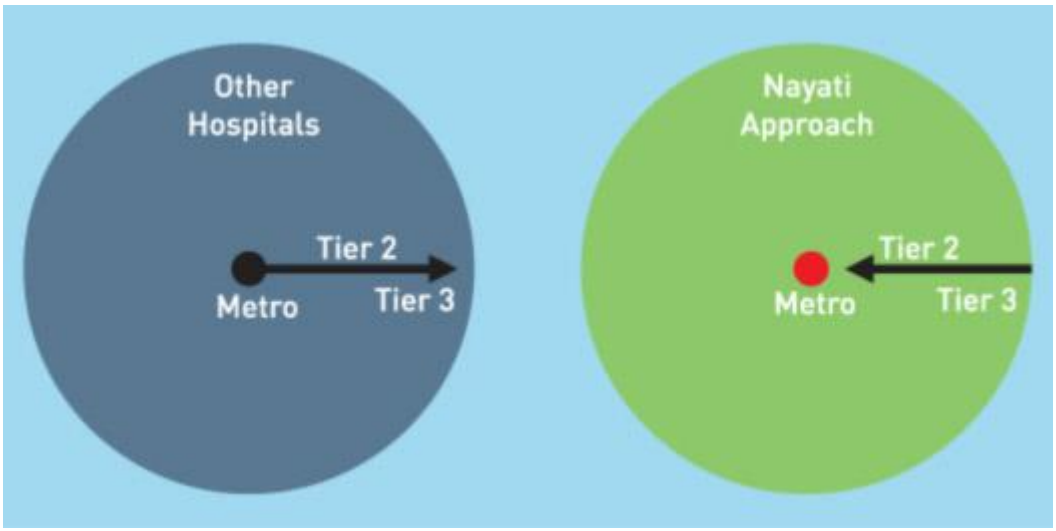
NAYATI HEALTHCARE started its journey in 2012 from the pious grounds of Badrinath with 4 mobile medical units and a team of 36 paramedics and doctors. In a very short span of time, working across these regions, Nayati came face to face with certain grim realities in healthcare which was metro centric. Nayati believes that good healthcare should be sans boundaries and seamless across the country and the world. Hence the organization decided to embark on a revolutionary journey of taking tertiary level world-class treatment across Tier-II & Tier-III cities which have long been neglected.

Complete Integrated Healthcare

Our endeavor is to offer complete healthcare solutions within the hospital with our team of India's leading doctors, coupled with the best medical resources in all disciplines and specialized verticals of healthcare. All our Centers of Excellence for diverse key specialties will be self-sufficient in all aspects of diagnosis and treatment, because we know and understand that when it comes to matters of your health, every second is precious.

World Class State-of-the-Art Medical Technology:-

We take pride in offering world class treatment procedures and patient care services with the use of state of the art medical technology and advanced treatment facilities to provide both cost effective and faster care. We have various Intensive Care units like MICU, CCU, SICU, NICU and PICU that work 24X7.

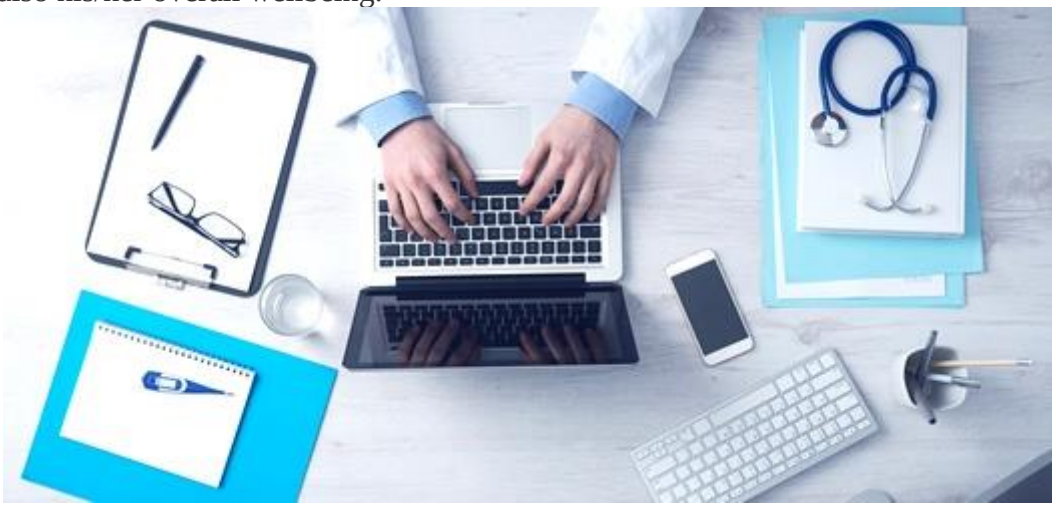


Taking Treatment to the Patient

At times, patients need access to quick treatment, as one does not have the option to travel long distances. We also understand that patients need to visit the hospital frequently for follow up checkups. Traveling long distances frequently can be very painful and impractical for patients as well as their families. To ease this everyday problem, we are setting up secondary diagnosis and care centers, as well as mobile vans in the neighboring towns, to ensure that every patient has access to quality healthcare.

Business Model

On one hand we had the challenge of providing world class healthcare on the other we had to also keep in mind the spending capacity and financial aspect of the local residents. This is why we decided to adopt the 'economies of scale' model as it was our responsibility to not only take care of the patient's health but also his/her overall wellbeing.



At Badrinath, we discovered an India that has severe disease burden, under diagnosed with no access to quality healthcare, except in the metros

Our inspiration and learning:-

Five years ago we dared to dream "The Nayati Dream" - to take treatment to the patient.To extend access to modern healthcare beyond the bounds of mega cities. We decided to embark on a revolutionary journey of taking tertiary level world-class treatment across Tier-II & Tier-III cities which have long been neglected.Over 3 lakh Outpatients, Over 1,10,000 In-patients and Over 70,000 emergency & trauma patients.

VISION

"Our Inspiration"

The thought behind ' Nayati' was born on the pious grounds of Badrinath. With the philosophy of 'Arogaya Mev Jayate ', which is a clarion call and a promise of bringing world class healthcare services to millions. We at Nayati are dedicating our hearts, minds and souls to ensure that the boon of good health reaches each and every individual.

Our Vision

Taking the world class treatment to the patient. To provide world class and trustworthy healthcare services in a cost effective way to people living in tier 2- tier 3 cities of the country.

Our Aim

To develop world class healthcare institutions which are advanced, affordable and where a patient's welfare is at the heart of every action. To ensure that these institutions take world class healthcare beyond the metros and are easily accessible to the people living in tier 2 and tier 3 cities of the India. To establish Nayati Healthcare into a trusted Healthcare brand that is dedicated to provide the right care to each and every patient.

NAYATI MEDICITY, MATHURA

Nayati Healthcare's flagship Multi Super Specialty Hospital, Nayati Medicity, Mathura, commenced operations in February 2016 and has emerged as one of the finest healthcare providers in the country. With world class infrastructure and finest team of doctors, it is the state's only comprehensive super specialty quaternary care hospital.

The 351 bed hospital on National Highway 2, Mathura, has seven Centers of Excellence and 14 Specialty departments including Cardiac Sciences, Oncology, Orthopedics and Joint Replacement, Critical Care, Renal Sciences, MAS GI & Bariatric Surgery, Neurosciences, Pulmonary medicine, Pediatrics & Neonatology, Trauma and Emergency. These centers are supported by the region's most advanced Intensive Care units comprising of MICU, CCU, SICU, NICU and PICU.

Located two and half hours from the Delhi airport, the hospital has emerged as a preferred choice not just for residents of Uttar Pradesh and the adjoining states, but also for patients from other parts of the country and abroad. Owing to the huge demand, the hospital is undergoing major capacity expansion

from the existing 351 beds to 775 beds, making it one of the largest multi super specialty hospitals in Uttar Pradesh.

Nayati Medicity, Mathura has been awarded the Best Multi Super Specialty Hospital in Uttar Pradesh by The Times of India Group, India's leading media house.

Our Facilities

- 

  Nayati Heart Centre (Angioplasty & Angiography, Heart Surgery)

- 

  Nayati Cancer Centre (Radiation, Medical And Surgical)

- 

  Neurology Centre

- 

  Orthopaedics, Joint Replacement and Spine Surgery

- 

  Advanced Critical Care (SICU, CCU, MICU, PICU, NICU, HDU)

- 

  Gastroenterology (Endoscopy, Colonoscopy) Gastro-intestinal & Bariatric Surgery

- 

  Pain Management

- 

  Urology, Nephrology & Dialysis

- 

  General and Minimal Access Surgery

- 

  Pulmonology, Chest and Sleep Medicine

- 

  Obstetrics & Gynaecology

- 

  Paediatrics and Neonatology

- 

  Plastic and Reconstructive Surgery

- 

  Day Care Services

- 

  Endocrinology

- 

  Internal Medicine

- 

  Nuclear Medicine

- 

  Psychiatry (OPD)

- 

  Ear, Nose & Throat (ENT)

- 

  Ophthalmology

- 

  Dental Services

- 

  Dermatology and Venereology

- 

  Physiotherapy and Rehabilitation

- 

  Rheumatology (Joint Diseases)

- 

  Dietetics

- 

  Yoga & Wellness

- 

  Psychology and Counseling

- 

  24×7 Blood Band and Transfusion Medicine

- 

  Laboratory Services

- 

Imaging Services (MRI, CT-Scan, USG, X-Ray, Mammography, BMD & Neuroradiology)

- 

  27×7 Emergency with Ambulance Services

- 

  24×7 Pharmacy

CAMPS:

1) Micro Health Camp at RayaS
2) Blood Donation Camp – LIC, Mathura
3) Super Specialty Health Camp with Shri Ram Social Welfare Society at Etah
4) Micro Health Camp at Sihana Village
5) Under Program of PMSMA in Raya PHC / Sonai CHC
6) Micro Health Camp at Kota Village
7) Mursan Health camp
8) Multi-Specialty Health Check-up Camp at District Jail Aligarh

NAYATI PEDIATRIC FOUNDATION

In India, an increasing number of children and young adults under 18 years of age are suffering from life threatening diseases and conditions. These numbers are especially high in tier II & tier III cities and in most cases these young patients need dedicated and prolonged treatment, something which their families and parents with limited incomes cannot afford. For them, these factors make proper care and healing a distant dream. With the idea of tackling this relevant issue, Nayati Healthcare has launched 'Nayati Pediatric Foundation'. A foundation that aims at not only spreading awareness about both preventive health and acute medical conditions in children but also providing underprivileged children with specialized pediatric treatments and services at the earliest. We believe through our expertise and

efforts we can transform the future of our children and our nation. The foundation will cover the following verticals:

- Cardiac & CTVS
- New Born services
- Cancer / Oncology
- Critical Care

Across India, millions have unequal access to healthcare. Many become ill or die from preventable diseases or lack any opportunity of treatment for serious ailments. There is a real need to take quality care to those in need.

Nayati Charitable Trust is a charitable initiative that provides quality public health services and disaster relief to communities who lack basic healthcare infrastructure. We do this using a variety of mechanisms including free general, early-detection, and specialized health camps, multifaceted community connect activities, and medical assistance after a natural disaster.

Our mission is to preserve people's right to a live a dignified life by providing them the services they need to care for themselves, their family, and their community.

We serve 18 districts across Eastern Rajasthan, Uttarakhand, and Western Uttar Pradesh, utilizing Nayati's three pillars of activities: Health Camps, Community Connect, and Disaster Relief.

Nayati Medicity's STORY

Nayati Charitable Trust was established in April 2012 with a fleet of 16 mobile medical units and a workforce of 35 motivated caregivers. We operated mobile units providing free primary and preventative healthcare in and around Uttarakhand first (including the pilgrimage town of Badrinath) and eventually Western Uttar Pradesh.

Nayati quickly added disaster relief to its activities after a cloudburst, and later a landslide, severely devastated the regions we served. Since then Nayati has been the first responders to various natural disasters impacting Northern India and more recently, the Nepal earthquake.

The name Nayati has become synonymous with care in the regions we serve and through our activities we have created a network of committed individuals from the medical field and beyond, seeking to serve more people with an even greater quality. As a result, Nayati Charitable Trust served as the inspiration for Nayati Healthcare Private Limited, which operates multi-specialty hospitals in tier 2 & 3 cities across Northern India.

Today Nayati continues to work in Badrinath and in disaster relief, and has expanded to serve the sequestered regions surrounding Nayati Multi Super Specialty Hospital in Mathura with activities specific to that locale. Through our diverse range of accomplishments we always carry the same ethos from the very beginning: to provide healing and hope by promoting a more caring world and preserving the dignity of every person we meet.

351 Beds ● 22 Specialties ● 122-bed ICU ● 7 modular OTs
First hospital in a Tier III city to have received the prestigious NABH accreditation
The only NABH approved Blood Bank in UP
End to end Cancer Care including radiation and BMT

Highly complex minimal invasive GI surgery including Bariatric Surgery
First successful kidney transplant performed in a tier III city
We have set up an Academic Wing and organize several National and regional level medical conferences
Over 50 Research Papers in leading global publications

First of its kind of ICU – digitized

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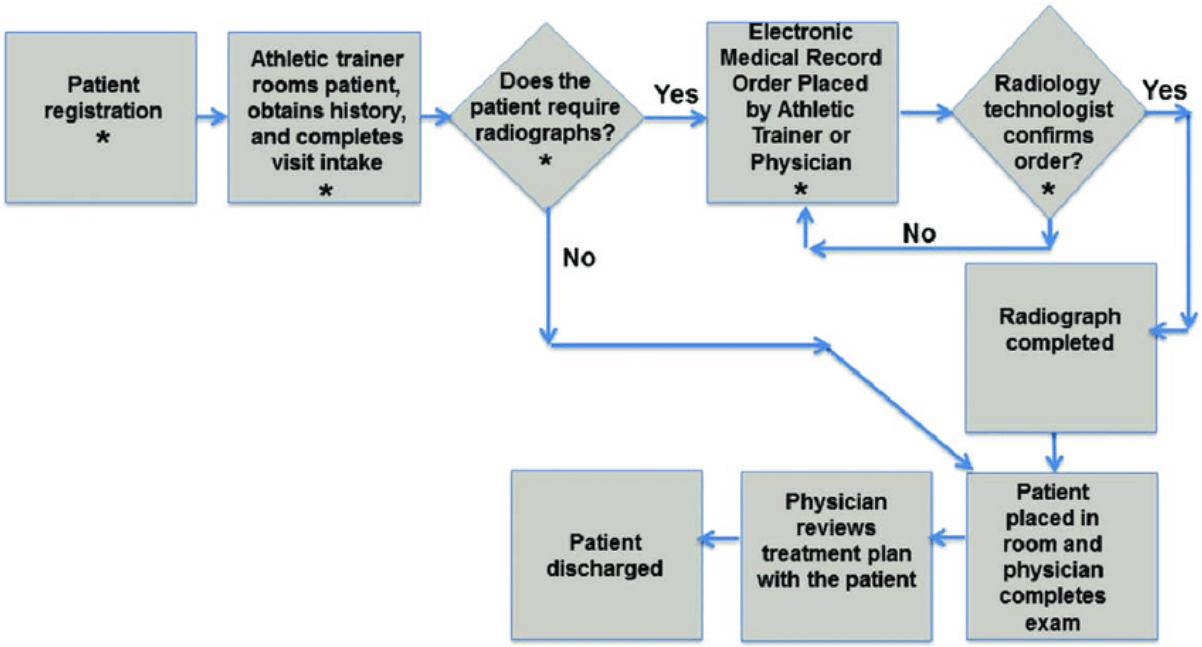
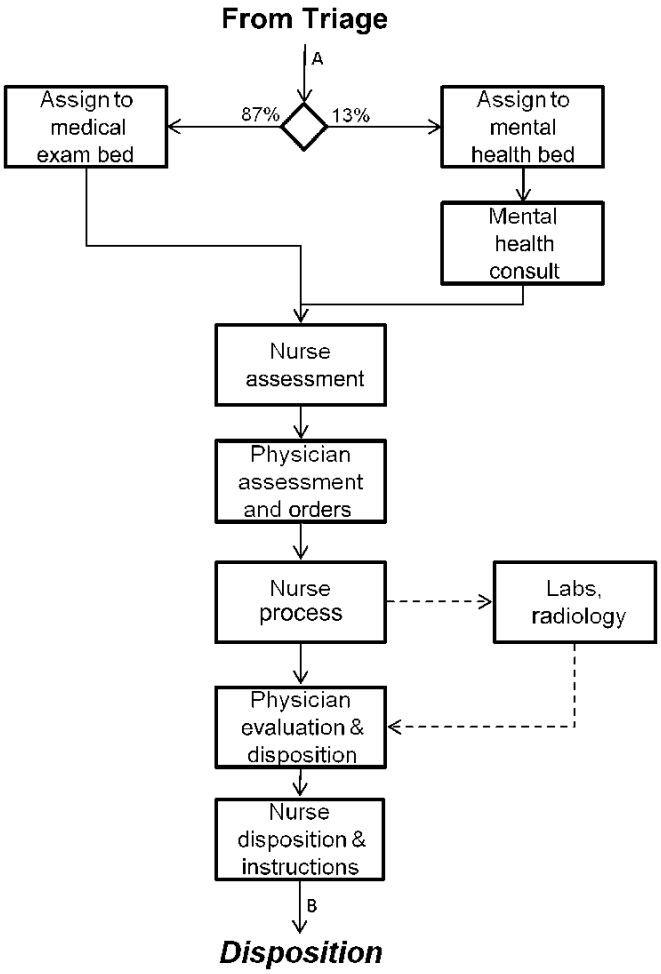
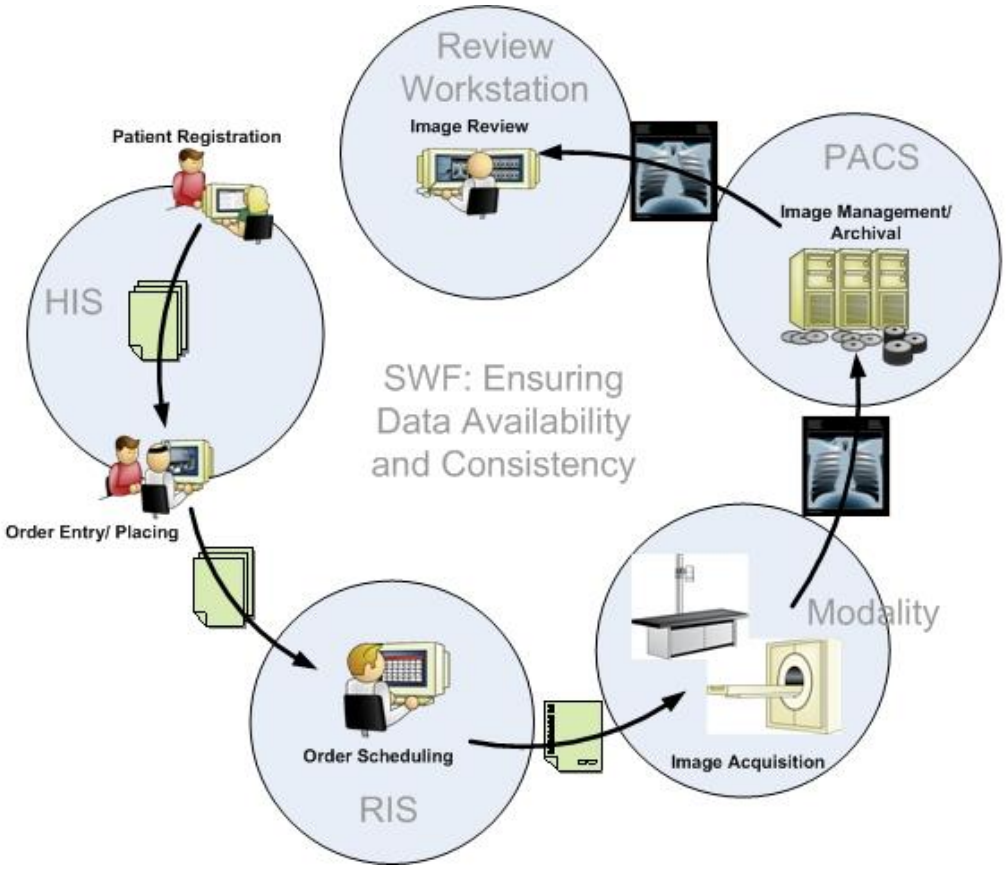
OBSERVATIONAL LEARNING

OBSERVATIONAL LEARNING:

Process in Radiology Department Patients flow:




From Triage
A
Assign to medical exam bed
87%
13%
Assign to mental health bed
Mental health consult
Nurse assessment
Physician assessment and orders
Nurse process
Labs, radiology
Physician evaluation & disposition
Nurse disposition & instructions
B
Disposition

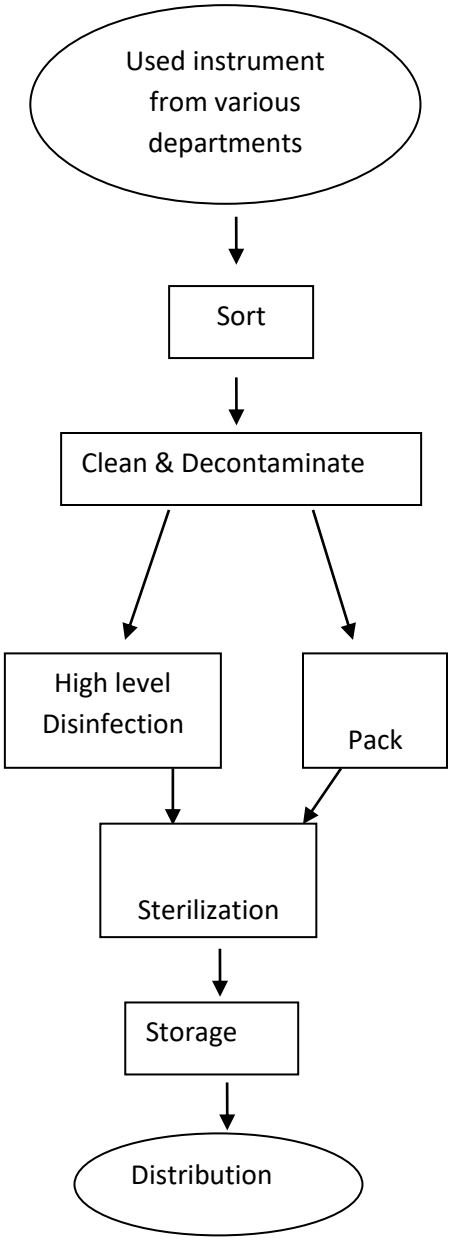


Description:-

- The process starts in Radiology department with the registration of the Patient. After the Registration we place the entry in the system.
- Then order gets scheduled as per requirement.
- We call the patients and match the identity like UHID NO, Name, Age, Gender and job description.
- We do the job in image acquisitions with relevant machine, once it is finished patients gets dispatched to OPD or IPD with GDA staff / Nursing staff or both.
- After the modality we place the image and data to image management archival, then images and data gets analyzed by the concern Doctor and makes the report on it.
- Finally we submit the report to the concerned department.

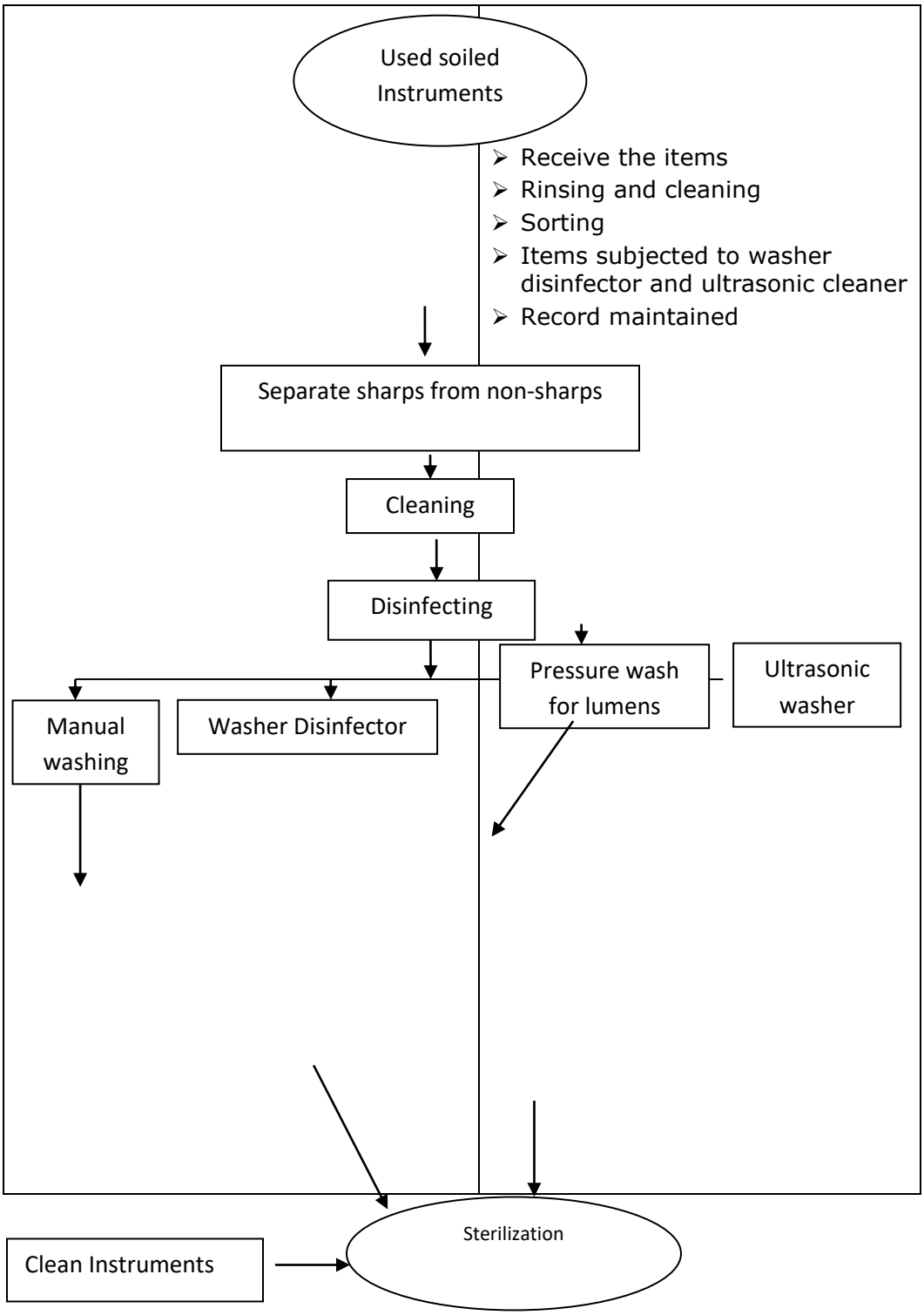
Note : - The process has been explained in the above chart and diagrams.

Process in CSSD Department Patients flow:



- Receive the items
- Rinsing and cleaning
- Sorting
- Items subjected to washer disinfector and ultrasonic cleaner
- Record maintained
- Receive goods subjected to cleaning
- Check for dryness, functionality defects, breakages etc.
- Assemble appropriately
- Counting made and record maintained.
- Packing & Labelling done
- Linen packs kept separately
- Indicators are arranged / placed
- Sterilization carried out (Autoclave / ETO)
- Equipment are checked & maintained
- Record maintained.
- Items received from sterilizer(s)
- Checked for indicator colour change and wetness
- Biological indicator result.
- Items stored on racks
- Items issued based on indent requested
- Records maintained (load register, issue register etc.)

FLOW CHART	Work Instructions

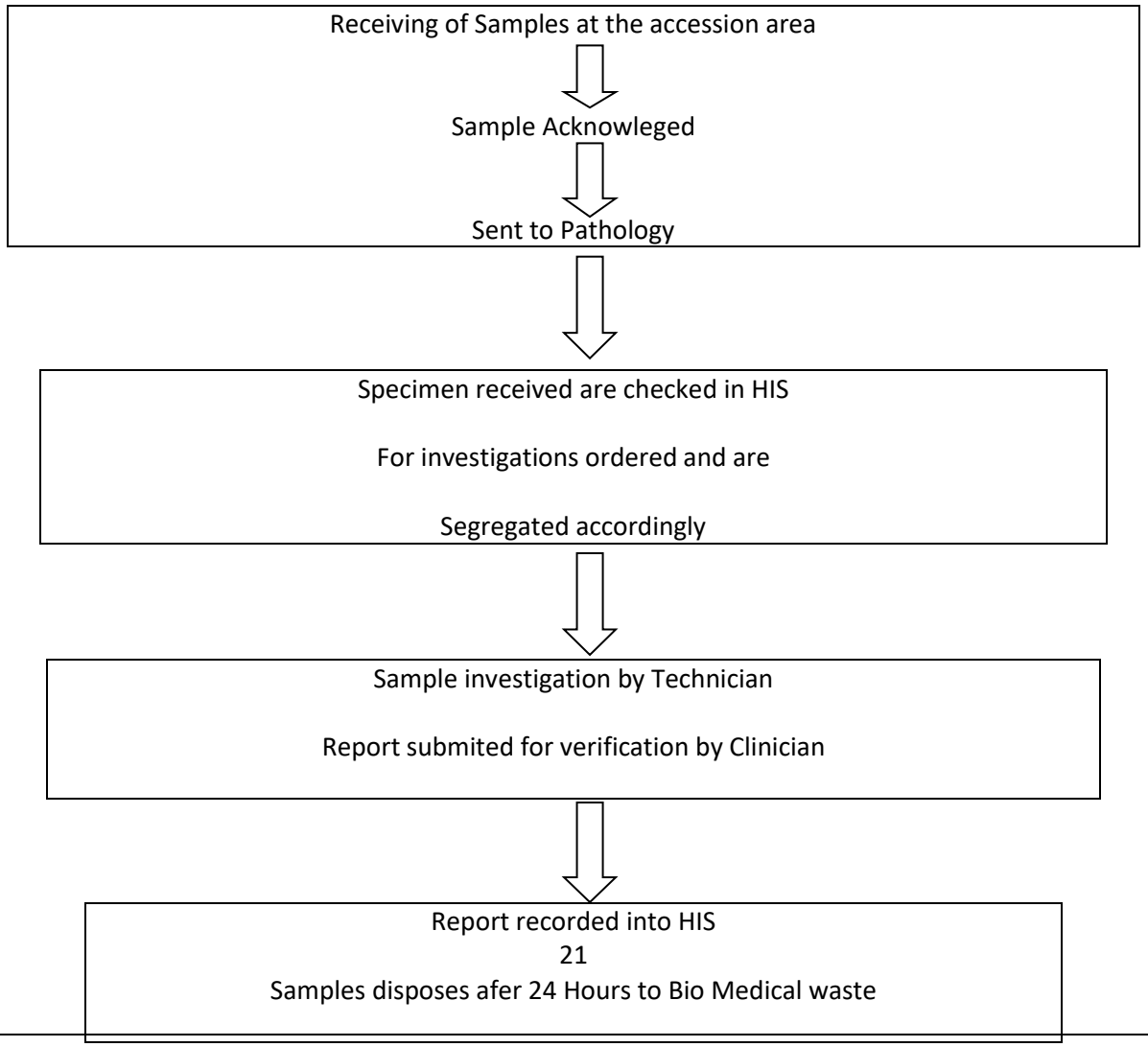

Used soiled Instruments
Receive the items
Rinsing and cleaning
Sorting
Items subjected to washer disinfector and ultrasonic cleaner
Record maintained
Separate sharps from non-sharps
Cleaning
Disinfecting
Pressure wash for lumens
Ultrasonic washer
Manual washing
Washer Disinfector
Sterilization
Clean Instruments

Process in CSSD Department Patients flow:

- Process in CSSD department starts with receiving the used soiled instruments . we receive it from different departments and mention it in the receving register.
- Then we rinse and cleen it with water and keep to dry properly. And Check breakage or functionally defects.
- Once it is dryed we do sorting in respect of sharp and nonsharps. And mention in the respective record book.
- After that we segrigate the instruments in respect of disinfector and ultrasonic cleaner. Here we check the devices with colour indicator protocol.
- Then finally cleaned instruments gets sterilized. Again we update it in our record book.
- After that we do the packing of instruments and send to dispatch section.

Process in Laboratory Department Patients flow:

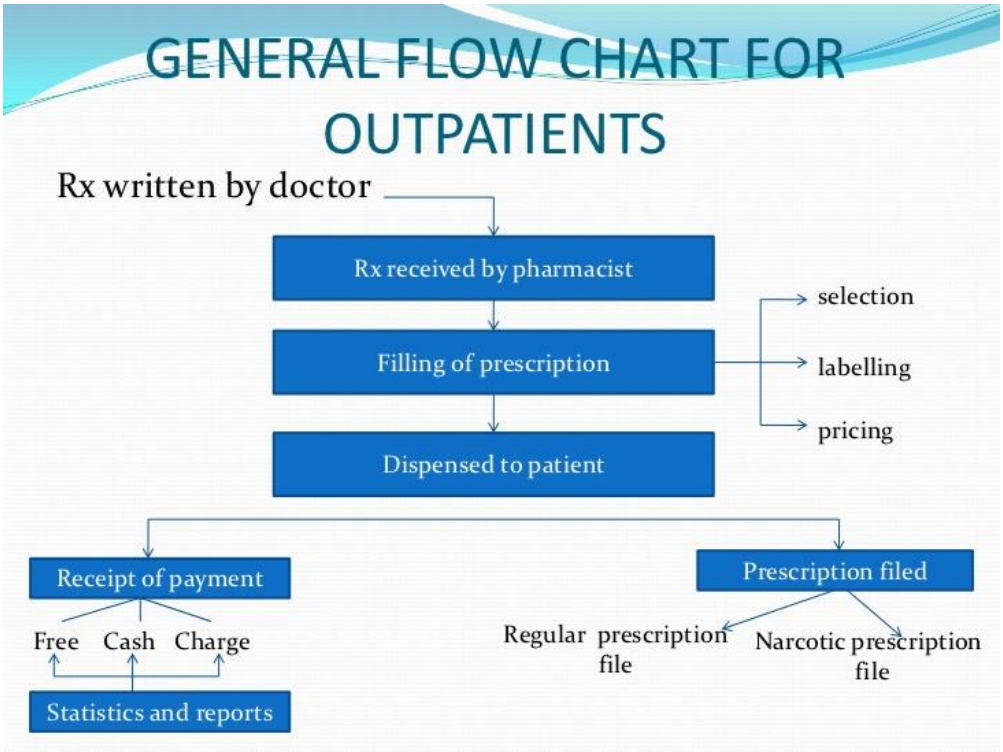
Work Flow In Laboratory:-

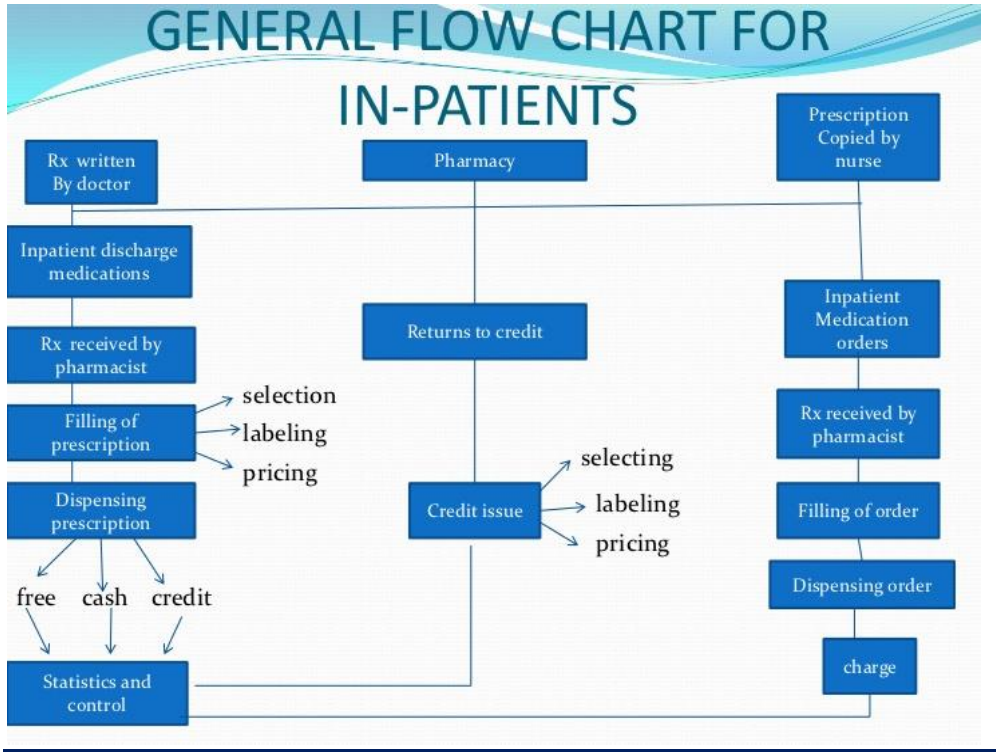


Explanation:-

- In Laboratory job starts with sample receving at accession area.
- We collect the samples and record it in Record book and sent it for sorting or segrigation.
- As per requirement we keep it stored and technicians do the investigation and make the report .
- Report gets analyzed by the clinician and then we send it to the concern department.
- Finally the sample disposes to Bio Medical Waste.

Process in Pharmacy Department Patients flow:



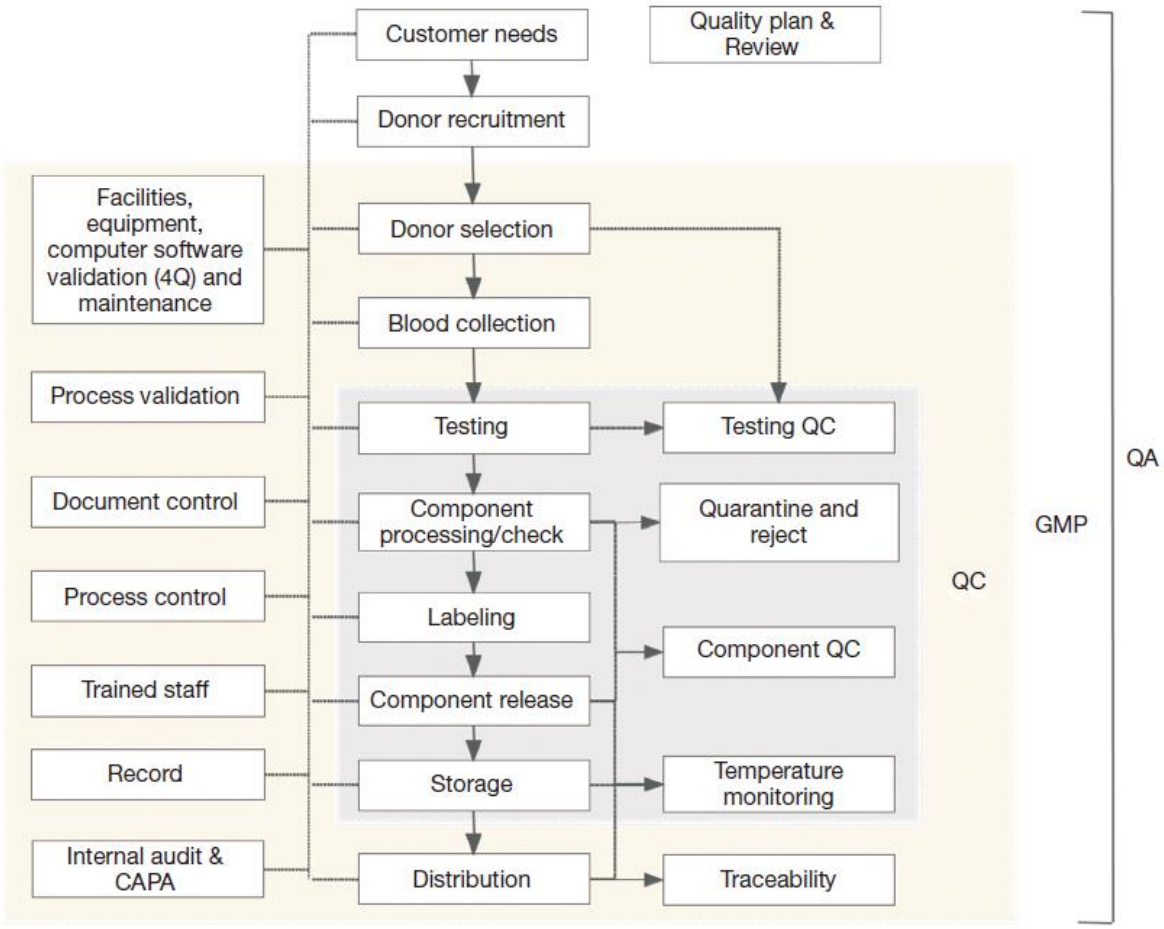


Explanation:-

In Pharmacy we have two sections of patients flow . 1) OPD patients & 2) IPD patients.

- For OPD patients we give medicine to patients or attendents direct demand on Pharmacy counter once they show the prescription.
- Receiving the prescription we do filling of prescription that stands for selection of medicine, labeling and pricing of the medicine.
- After that we do the billing of the medicine either in cash, credit or free. And put it in record.
- Then segrigate the prescription to regular prescription file or Narcotic prescription file.
- For IPD patients we get the copy of prescription by nurse .
- Receiving the prescription we do filling of prescription that stands for selection of medicine, labeling and pricing of the medicine.
- After that we do the billing of the medicine to the name of patient with verification of patient's UHID. And put it in statistics and control.
- Then segrigate the prescription to regular prescription file or Narcotic prescription file.

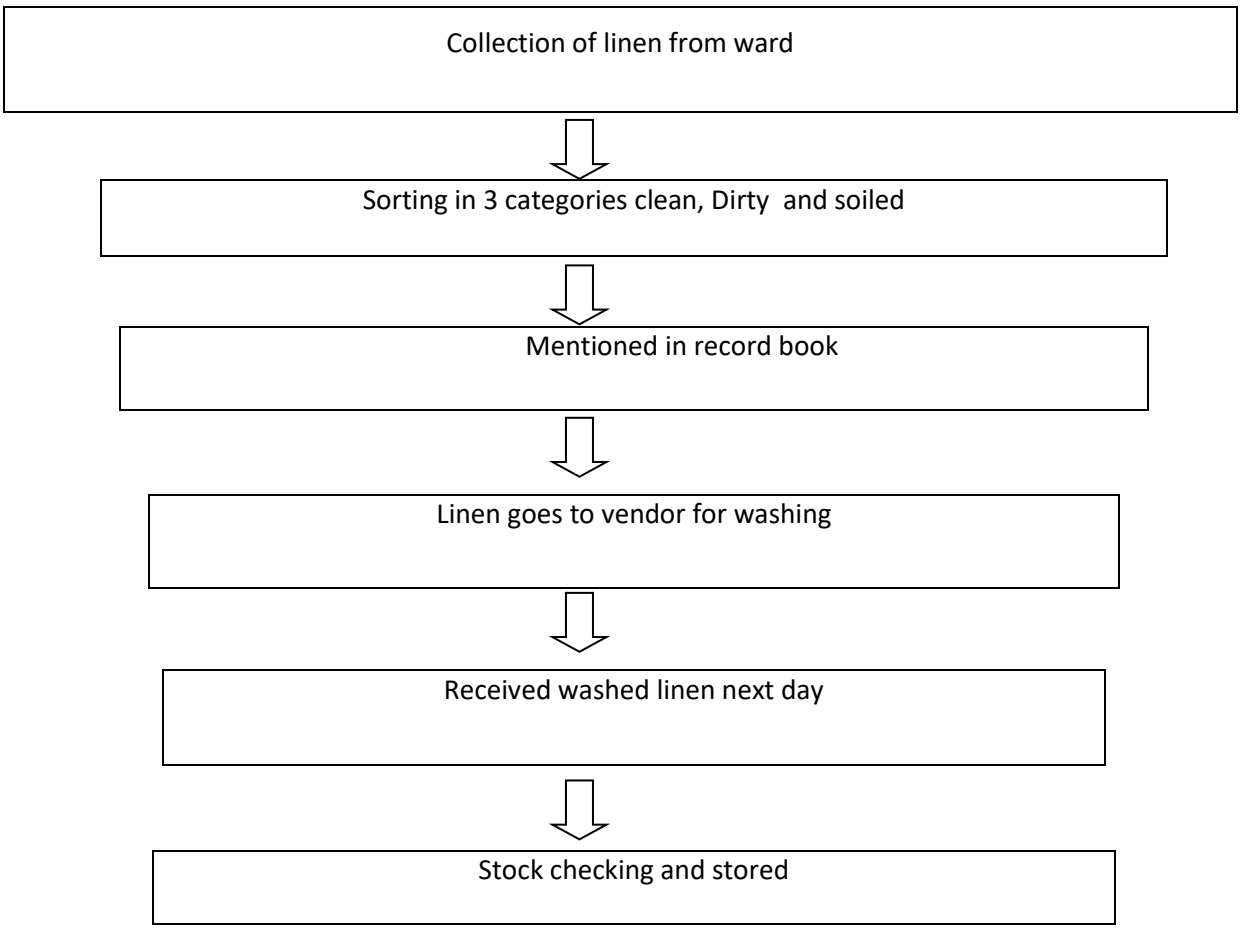
Process in Blood Bank Department Patients flow:



Explanation:-

- Once we get the reqirement of the blood from different department such as Emergency, operation theater or IPD we do the donar recruitment and then donor selection.
- We do selection of the donor after testing and find ok on all parameters.
- Then do blood collection from donor. Send it for component processing.
- Then do the labeling of the collected blood and component release.
- After it we store it in the storage. And it goes for distribution to the required department. And record it.

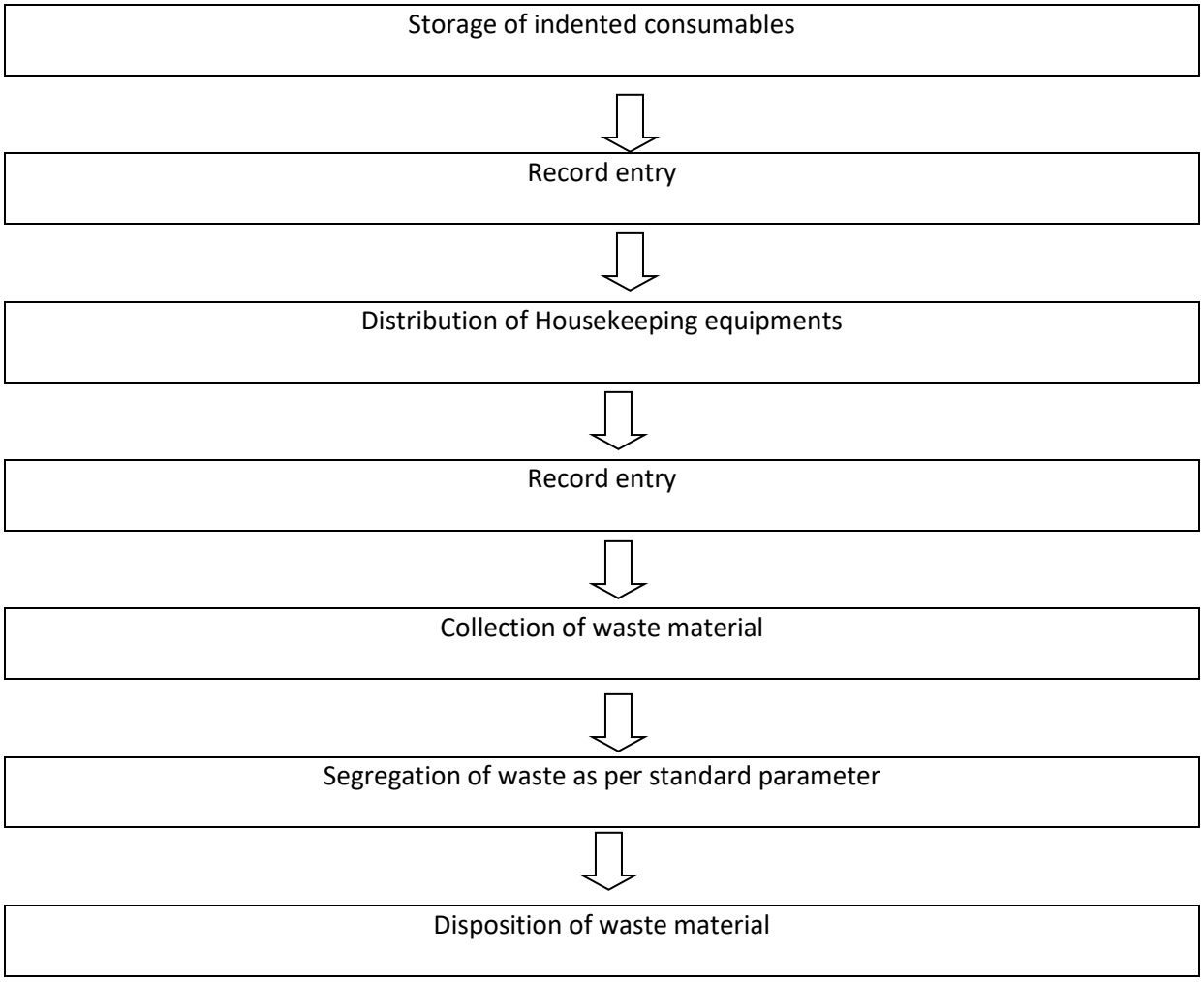
Process of Laundry Department



Explanation

- Here the job of the laundry department starts once there is discharge of the patients.
- We remove the linen and categories in 3 division clean, Dirty and soiled.
- All the linen after sorting in DU gets counted and recorded in record.
- After the record entry we handover the linen to the outsourced vendor and take receipt of it.
- Next day we receive the washed linen from vendor and do counting and keep updated in the record book.
- We do the bed ready with fresh linen in 30 minutes of turnaround time.

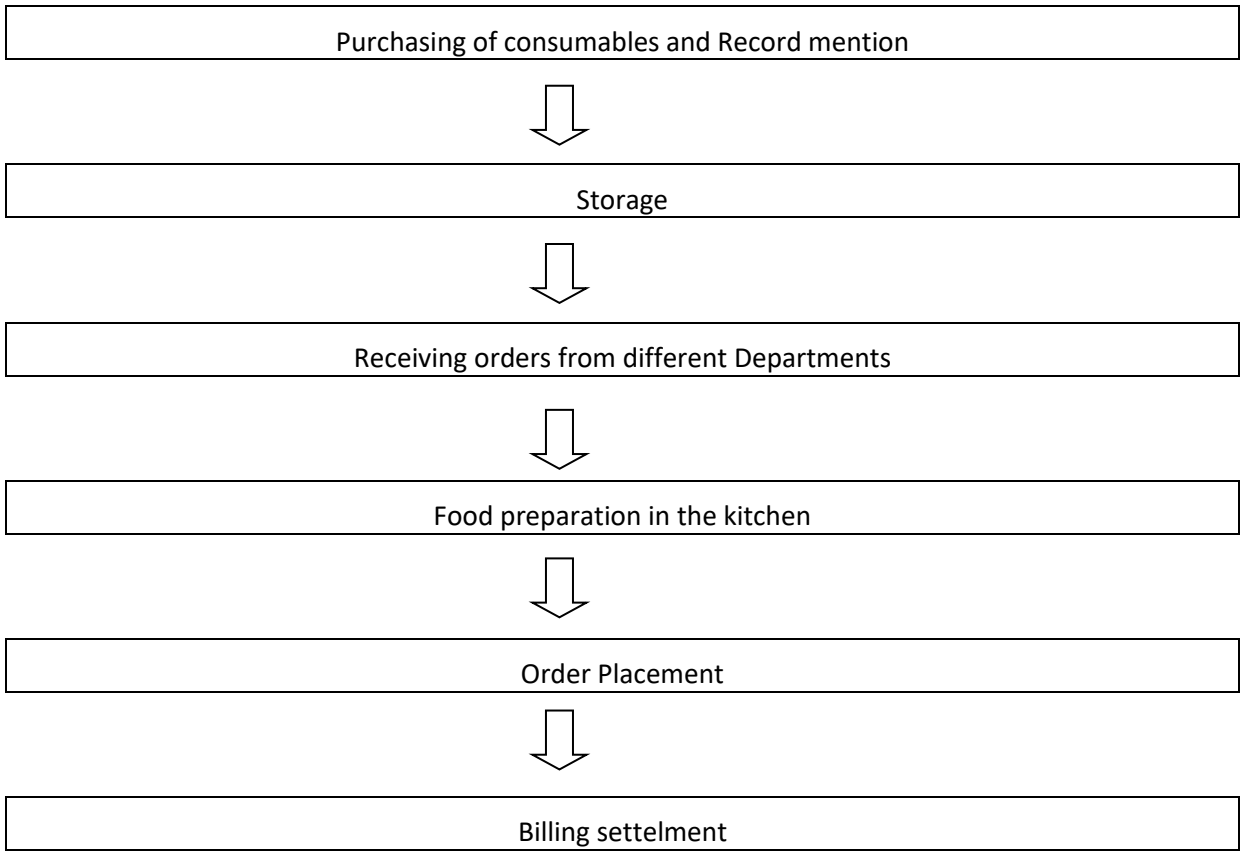
Process of Housekeeping Department work flow



Explanation

- First of all we store the indented consumables as per requirements and make a record in the record book.
- Then every morning do the distribution of consumables as per requirements to the working staffs and record it in the register.
- We do the cleaning and collect the waste material from different departments.
- Then segregate the waste material in different color garbage bags as per standard parameters.
- Dispose all the waste material to the disposal van provided by the vendors.

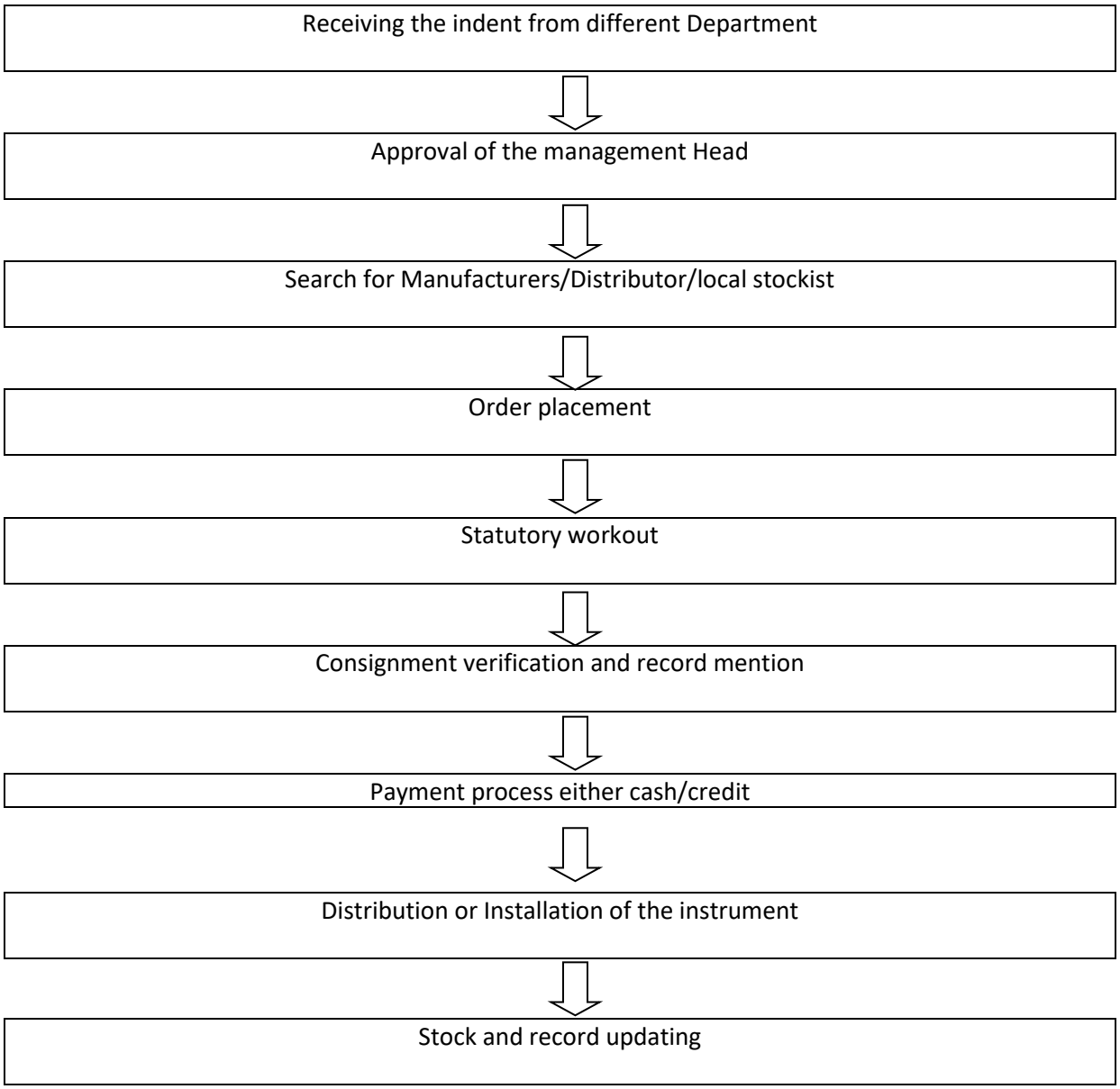
Process of Food and Beverage Department work flow



Explanation

- First of all we purchase and do storage of the consumables and record in the register book.
- Then we receive the food orders for different patients with concern of dietician. We register the name of the patients with UHID number and bed number of the perticular department.
- Send the request of order to prepair the food in the kitchen.
- Then deliver the food to the patients on given time.
- After that we do the billing for the service to the patients account for free, cash or credit. And mention to the record.

Process of Supply and Chain Management Department work flow



Explanation

- Our job starts once we get the indent for any instrument or requirement.
- As we get the indent or request we take the approval of head of the management.
- After the approval we look for the best manufacturer or service provider. And place the order.
- Here we take care of some statuary process if needed like license or any other legal documentation.

- Once we get the consignment we do the verification of the instrument like breakage or functional defects etc.
- Then installation or distribution done by concerned team members.
- After all this we do the stock and record updating.

PART-B

DESSERTATION REPORT

ABBREVIATIONS

IPD	**In Patient Department**
OPD	**Out Patient Department**
ICU	**Intensive Care Unit**
OT	**Operation Theater**
GDA	**General Duty Assistant**
MRD	**Medical Record Department**
LAMA	**Leave Against Medical Advised**
TAT	**Turn Around Time**
TDW	**Tentative Discharge Written**
HIS	**Hospital Information System**
HK	**House Keeping**
TPA	**Third Party Administrator**

INTRODUCTION

"To streamline the patient's discharge process in Nayati Medicity, Mathura (UP)"

1. Introduction

The main objective of this present study focuses on the patients who were related to delayed discharge process at Nayati Medicity, Mathura for the treatment in various clinical specialties.

Discharge: discharge from the hospital is the point at which the patient leaves the hospital either returns home or is transferred to another facility such as one for rehabilitation or to a nursing home.

Importance of Discharge

Discharge planning is an important part of the any hospital admission. It play an important role in ensuring a smooth move from hospital to home. This is achieved by making sure that appropriate clinical and community based support services are in place if required. Discharging patients from the hospital is a complex process that is fraught with challenges. Preventing avoidable re – admission has the potential to profoundly improve both the quality –of- life for patient and the financial well-being of healthcare systems. With elective care, discharge planning should start before admission this allows everyone to focus on a clear endpoint in the patient's care. It also reduces errors and unnecessary delays along the patient pathway. If inpatient beds are a bottleneck, reducing pressure on the beds will increase throughput and therefore reduce referral to treatment times.

"Discharge Process" is one of the vital functions in the health care organization that needs to be streamlined and monitored on a regular basis. Discharge of patient from the Hospital means, relieving a person from Hospital setting after addressing the healthcare needs of the patient. Appropriate Discharge Process plays an indispensible role in providing quality care services to the patient. There are a number of factors that impact patient experience and a smooth Discharge Process will lead to increase in Patient Satisfaction and quality of service delivery.

TYPES OF DISCHARGE PROCESS:

Planned Discharge: Systematic process for preparing the Patient to leave the hospital and for continuity of care. Tentative discharge written (TDW) by consultant on the "Progress Notes" a day before the patient will get discharged.

Unplanned Discharge: A Discharge which is not planned a day prior and immediately planned for discharge on the doctors round.

Ideal Discharge Process

Discharge Planning

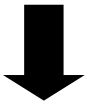
i. Discharge planning at the time of admission

ii. Package patients (with fixed Length of Stay)

iii. Doctors intimation one day prior to discharge

iv. Tentative discharge after doctors round (Waiting for investigation/examination)

Information to be shared with respective stakeholders by 4 pm daily



The following activities to be completed sequentially –

- **Discharge Intimation (Date & Time)**
- **Actual discharge (Date & Time)**
- **Discharge summary Ready (Time)**
- **Nursing Clearance (Time)**
- **Pharmacy Return (Time)**
- **Bill ready (Time)**
- **Bill settlement (Time)**
- **Room vacation (Time)**

Discharge Process In Nayati Medicity

Plan for Discharge at least 1 day prior (Ideally Discharge planning should be at the time of admission)

Nurse should mark in HIS expected date of Discharge

Prepare Discharge Summery by doctor

Return of all left over medicines except morning dose

Inform to other department like-Dietician

On the day of Discharge, doctors will write in doctor's progress sheet that patient is fit for Discharge today

Nurse will mark Discharge intimation

After putting all the charges & Discharge medicine indenting, nurse will give clearance from nursing side through the HIS & they will send the billing sheet to the billing department through GDA

Pharmacy will give clearance after receiving left over medicines from the department

Billing department will give two clearance certificates to patient attendants (Patient will pay the Bill)

Patient will come to the nursing stations & will hand over 1 clearance certificate to the Team Leader

Nurse will hand over Discharge Summery & other relevant documents to the patients, doctors & nurses will explain the Discharge Summery to the patients

Tell the patient to change hospital dress & will remove IV Cannula & ID Bands

Once patient physically moved out from respected ward, nurse will remove patient from HIS

Nurse will inform to HK & Bed should be ready for new admission

Housekeeping will release for new patient after clearing through HIS

REVIEW OF LITERATURE

2. Review of Literature

Elements of Discharge Process

Discharge planning — Discharge planning is the development of an individualized discharge plan for the patient prior to leaving the hospital, to ensure that patients are discharged at an appropriate time and with provision of adequate post-discharge services. Discharge planning is a complex process. This process ideally begins at the start of the hospitalization. The hospital case manager should be involved as soon as the patient will require services at home, or will require transfer to an alternative level of care.

Medication reconciliation — Medication reconciliation, or medication review, is the process of verifying patient medication lists at a point-of-care transition, such as hospital discharge, to identify which medications have been added, discontinued, or changed relative to pre-admission medication lists. Performing accurate medication reconciliation is a critical element of a successful discharge transition. Most studies included in a 2012 Systematic.

Review showed that medication reconciliation was associated with a decrease in actual and potential adverse drug events. Medication reconciliation may have a more important impact on the reduction of readmissions due to adverse drug events.

Patient instructions — at the time of discharge, the patient should be provided with a document that includes language and literacy-appropriate instructions and patient education materials to help in successful transition from the hospital. These documents should be brief, focused on critical information to the patient, and primarily directed at what the patient needs to understand to manage his or her condition after discharge. Discharge information, both written and verbal, should be reviewed with the patient/ family caregivers with an emphasis on assessing and ensuring comprehension. In one interview study of patient perception and understanding of discharge instructions, among discharged patients, aged >65 years who felt that they had good understanding of their discharge instructions, 40 percent were unable to accurately describe the reason for their hospitalization and 54 percent did not accurately recall instructions about their follow-up appointment.

Role of discharge process in determining patient satisfaction In the present competitive world, quality of health care is playing an important role in the modern society. Among various factors affecting the health care system, discharge process is one of the important factors related to patient satisfaction. It is the process that occurs when the patient leaves the facility. It implies that the patient has previously been admitted to the facility. As the final step in the hospital experience, the discharge process is likely to be well remembered by the patient. Even if everything else went satisfactorily, a slow, frustrating discharge process can result in low patient satisfaction. Soon after completion of treatment, the patient as well as his or her escorts expects to be relieved off immediately. The delay in discharge process leads to dissatisfaction and affects image of the hospital.

Cause and reason for delay discharge

Scattered information and non-integrated database systems had resulted in increased works loads and dissatisfaction among internal and external hospital clients. Research in the Shahid Sadoghi Hospital, Iran has shown that the average length of the discharge process in the morning shift for a patient leaving the hospital in the afternoon is about six hours. The average length of the discharge process in the afternoon shift for patients leaving the hospital in the same shift is about two hours.

Sepsis as a cause of delay discharge:

Sepsis was the other commonest cause for delay hospital discharge among our long stay patients and majority of these were hospital acquired sepsis. Pneumonia and UTI were the other common form of nosocomial infections seen in the study patients. The high incidence of hospital acquired urosepsis may be related to the common occurrence of urinary retention which required urinary catheterization. This was also reflected in the delayed discharge of a large number of patients because of trials to wean off urinary catheters. The causes of urinary retention in the elderly are multifactorial, among the commoner ones are reduced mobility the use restraints and constipation.

Three causes of delays in hospital discharge, represented by time awaiting complementary tests, awaiting the results of tests and waiting for the preceptor/care team to make clinical decisions, were responsible for the majority of days of delay in hospital discharge. Discharge delays due to lack of availability of post discharge facilities and waiting for consultant opinions, tests and procedures, have been identified previously. This study has attempted to accurately quantify delays and their causes by adjusting for each patient, potential delays that did not lead to a prolonged length of stay.

Effects of delayed discharge

Bed pressures are increased by ‘delayed discharges’, which exacerbate patients’ exposure to hospital-acquired infections, low mood and increasing loss of functional capacity. Remedying such delays would provide both cost savings and better quality of care, in line with the NHS Quality, Innovation, Productivity and Prevention (QIPP) agenda. A significant and common effect of delay is unavailability of a bed due to delayed discharges. Although some delays are necessary for insurance and hospital procedure purposes, there are still many preventable delays that affect the process. Some of these causes included: contingencies, patients believed or had been told they could stay, orders written at inconsistent times, nurses not always able to anticipate discharges. By coordinating discharge/administrative duties on the inpatient floors we will be able to decrease the average length of a discharge.

PROBLEM STATEMENT FOR THE STUDY

- Delay in getting patient discharge by >4 hours for all three categories (TPA,PANEL & CASH).
- Communication Gap between healthcare providers.

AIM

- To streamline the discharge process & improve the TAT.

Objectives and Key Research Questions of this Study is –

Primary Objective

To bring down the current TAT within the define limit.

Secondary Objective

To identify reasons which causes delay in the discharge process.

STUDY DESIGN

- The study is **"Retrospective and Observatory."**

CATEGORIES OF PATIENTS INCLUDED AND EXCLUDED FOR STUDY

INCLUDED: Inpatient

EXCLUDED: Oncology, Dialysis and LAMA.

METHODOLOGY

METHODOLOGY

- The research methodology adopted for the study is **"Observatory and Retrospective"**.
- The process flow was studied for discharge of Inpatients.
- This study was carried out in tertiary care 351 bedded hospital in Mathura City.
- A comparative study between the ideal process and the actual running process in the hospital.
- Study was done after the process mapping for the Discharge of Cash patients, Panel patients and those through TPAs.
- The present investigation was limited to Nayati Medicity Hospital, Mathura. The present study was conducted for all three categories of inpatients. All the inpatients who got discharged from the hospitals in the month of January to May 2019 were considered for the study. A total of 100% discharges were considered for the analysis. A format to record the breakup time of discharge was distributed in all the departments. The data collected was analyzed using descriptive statistics and excel analysis along with this whole discharge process were observed by using observational types of study for all the patients who got discharged with the same sample size as mentioned above. These discharge process is observed from 9AM TO 6 PM daily (except Sunday). And the time taken for discharge from physician order on face sheet to completion of billing process was noted for every discharge patients along with their discharge summaries from all the departments with the exclusion criteria as mentioned above. To record patient data and satisfaction for discharge process used different electronic trackers like – Discharge Intimation (Date & Time),Actual discharge (Date & Time),Discharge summary Ready (Time),Nursing Clearance (Time),Pharmacy Return (Time),Bill ready (Time),Bill settlement (Time) and Room vacation (Time).

RESULT AND OBSERVATION

RESULT AND OBSERVATION

Entering into the hospital to going out from the hospital is a most stressful time for patient as well as their relatives. A successful treatment will be considered successful if the patient return to their home quickly through their accurate diagnosis, treatment and supportive services. It is seen that effective hospital discharge can only be achieved by a team work of all the departments in the organization. Even delay from a single department can cause delay in whole discharge process and patient suffers which ultimately effects hospital reputation. The discharge process of every patient from all the department was observed from 9AM to 6PM everyday during the study period of 5 months. The Sundays were excluded as there were no discharges on Sunday along with more exclusions like LAMA (as it is never planned),Day care(Oncology and Dialysis). The discharge process for every patient was observed from the time the treating consultant wrote a discharge note on a case sheet to the complete billing process along with the preparation of discharge summery. Out of the total sample size that is 100% discharges of 5 months.

CREDIT PATIENTS-DISCHARGE TAT (2019)

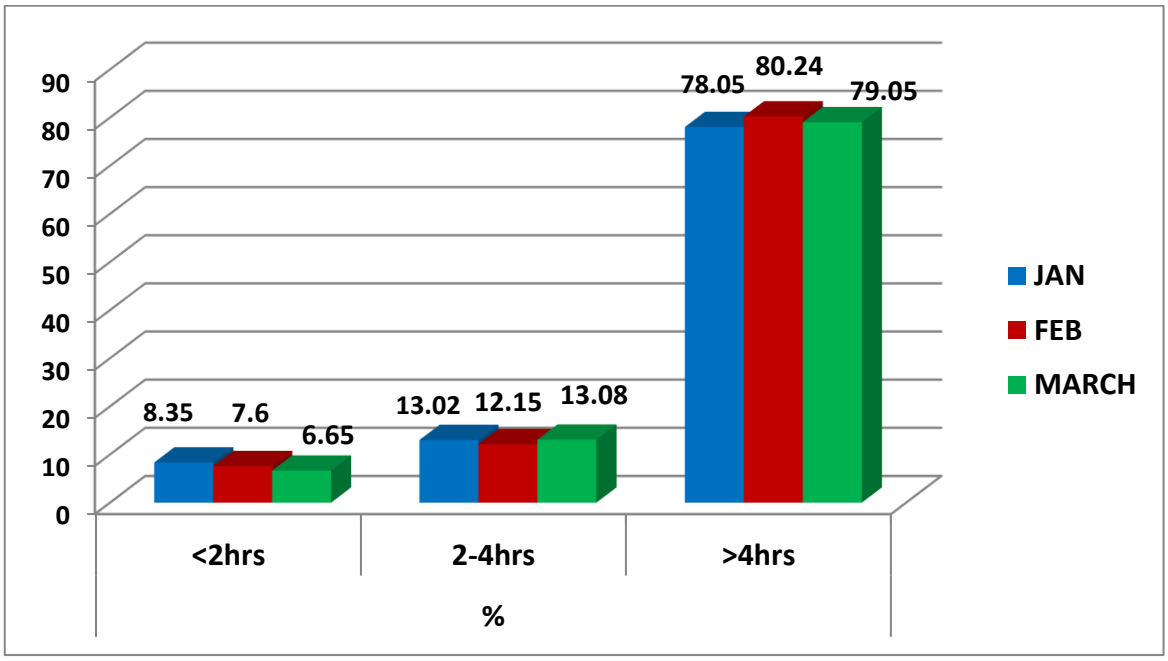
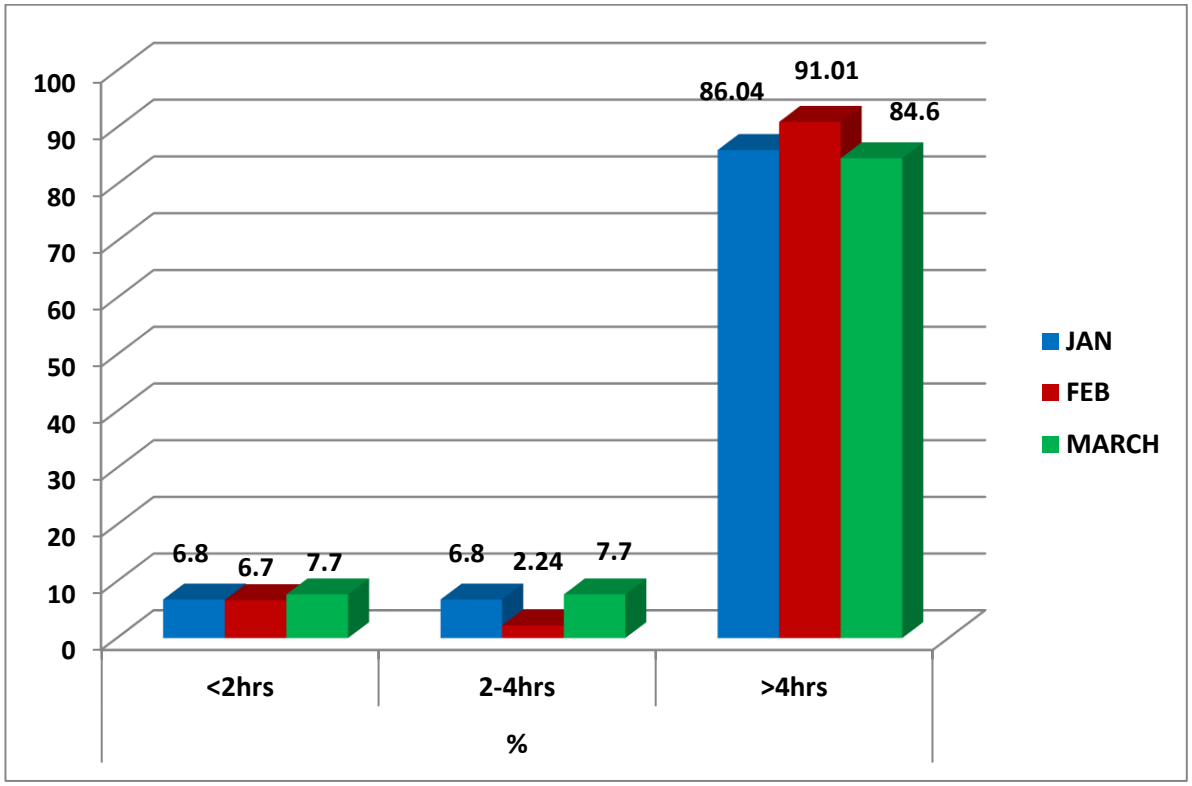


Fig 1: Credit Patients-Discharge Tat (2019)

Among 100% discharge observed in 3 months, for credit patients the discharge process was observed in three sets of time that is **<2 hours** it was 8.35% in the month of

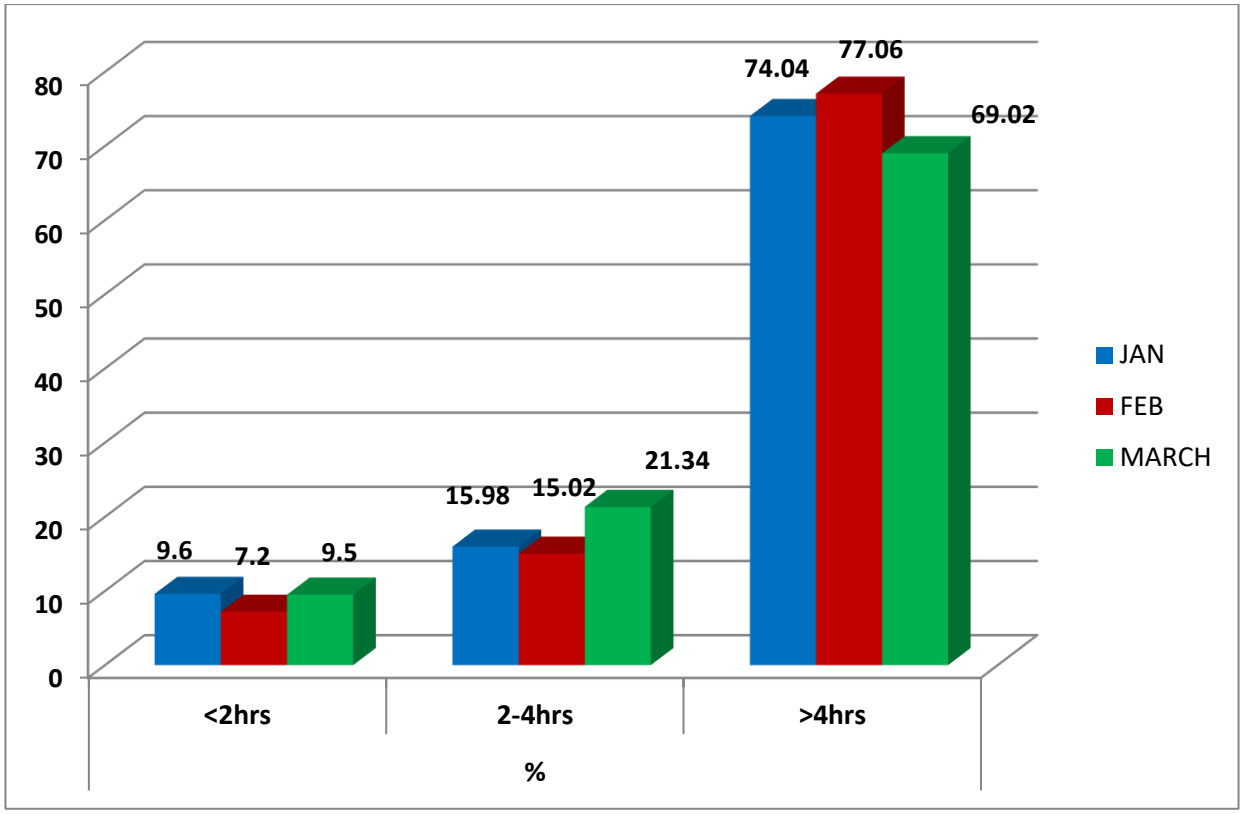
January, 7.6% in the month of February and 6.6% in the month of March. For **2-4 hours** in the month of January it was 13% in the month of February and 12% and in the month of March it was 13%. For **>4 hours** in the month of January it was 78% in the month of February and 80% and in the month of March it was 79%.

TPA PATIENTS - DISCHARGE TAT (2019)



Among 100% discharge observed in 3 months, for TPA patients the discharge process was observed in three sets of time that is **<2 hours** it was 6.8% in the month of January, 6.7% in the month of February and 7.7% in the month of March. For **2-4 hours** in the month of January it was 6.8% in the month of February and 2.2% and in the month of March it was 7.7%. For **>4 hours** in the month of January it was 86% in the month of February and 91% and in the month of March it was 84%.

CASH PATIENTS- DISCHARGE TAT (2019)

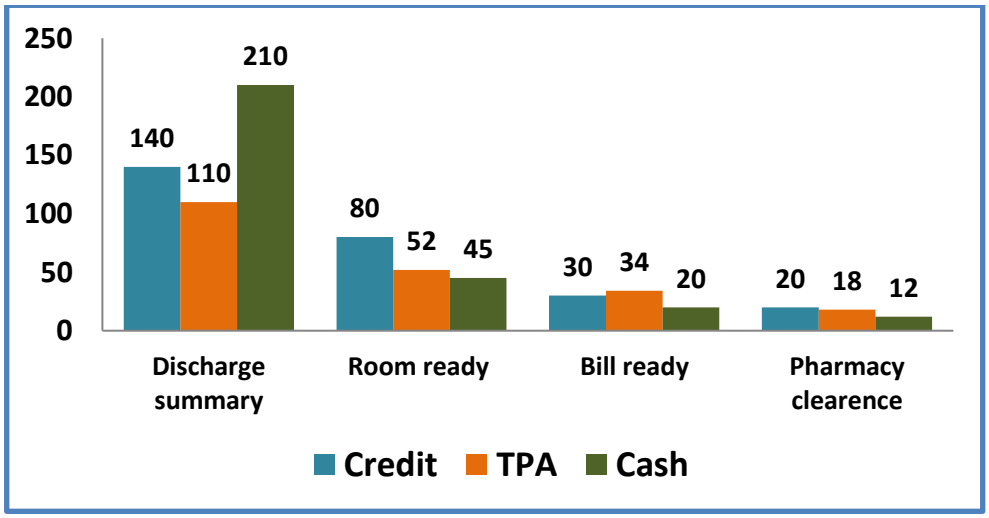


Among 100% discharge observed in 3 months, for cash patients the discharge process was observed in three sets of time that is **<2 hours** it was 9.6% in the month of January, 7.2% in the month of February and 9.5% in the month of March. For **2-4 hours** in the month of January it was 16% in the month of February and 15% and in the month of March it was 21%. For **>4 hours** in the month of January it was 74% in the month of February and 77% and in the month of March it was 69%.

IDEAL DISCHARGE TIME: As per NABH Standards average time taken according to the type of discharge

Steps in discharge process	Credit (Min.)	TPA (Min.)	Cash (Min.)
Discharge summary	30	30	30
Room ready	30	30	30
Bill ready	60	60	60
Pharmacy clearance	30	30	30

REASON FOR DELAY- JAN- MARCH 2019 (Time in minutes)



	Credit	TPA	Cash
Discharge summary	**140**	**110**	**210**
Room ready	**80**	**52**	**45**
Bill ready	**30**	**34**	**20**
Pharmacy clearance	**20**	**18**	**12**

- The above table shows that out of 100% discharge that observed in the time period of three months the steps in the discharge process took different interval of time in all types of patients. For credit 2355 patients were observed out of which the highest time was taken in the preparation of discharge summery that is 140 minutes. (Standard time is 30 min.), the time taken for room preparation was 80 minutes (Standard time is 30 min.), the time taken for bill ready was 30 minutes (Standard time is 60 min.),the time taken for bill ready was 20 minutes (Standard time is 30 min.).
- The above table shows that out of 100% discharge that observed in the time period of three months the steps in the discharge process took different interval of time in all types of patients. For TPA patients 417patients were observed out of which the highest time was taken in the preparation of discharge summery that is 140 minutes. (Standard time is 30 min.), the time taken for room preparation was 80 minutes (Standard time is 30 min.), the time taken for bill ready was 30 minutes (Standard time is 60 min.),the time taken for bill ready was 20 minutes (Standard time is 30 min.).
- The above table shows that out of 100% discharge that observed in the time period of three months the steps in the discharge process took different interval of time in all types of patients. For cash patients 2497 patients were observed out of which the highest time was taken in the preparation of discharge summery that is 140 minutes. (Standard time is 30 min.), the time taken for room preparation was 80 minutes (Standard time is 30 min.), the time taken for bill ready was 30

minutes (Standard time is 60 min.),the time taken for bill ready was 20 minutes (Standard time is 30 min.).

From the observation it was seen that the percentage of planned discharge was quite low that is 33%.

After the above observation some interventions has been incorporated in the month of April

100% of the discharge processes observed in three months (January, February and March) of all three categories of patients (PTA, Cash and Panel) and in the month of April a intervention is taken to improve the discharge delay for that we have included two employees from the administration to observe the whole discharge process and keep an eye on total planned an unplanned patients .

After the intervention of the month of April

We have observed that the Planned patients in the month of May and seen that there were 33% planned patients in the month of January to March has been improved to 78% in the month of May.

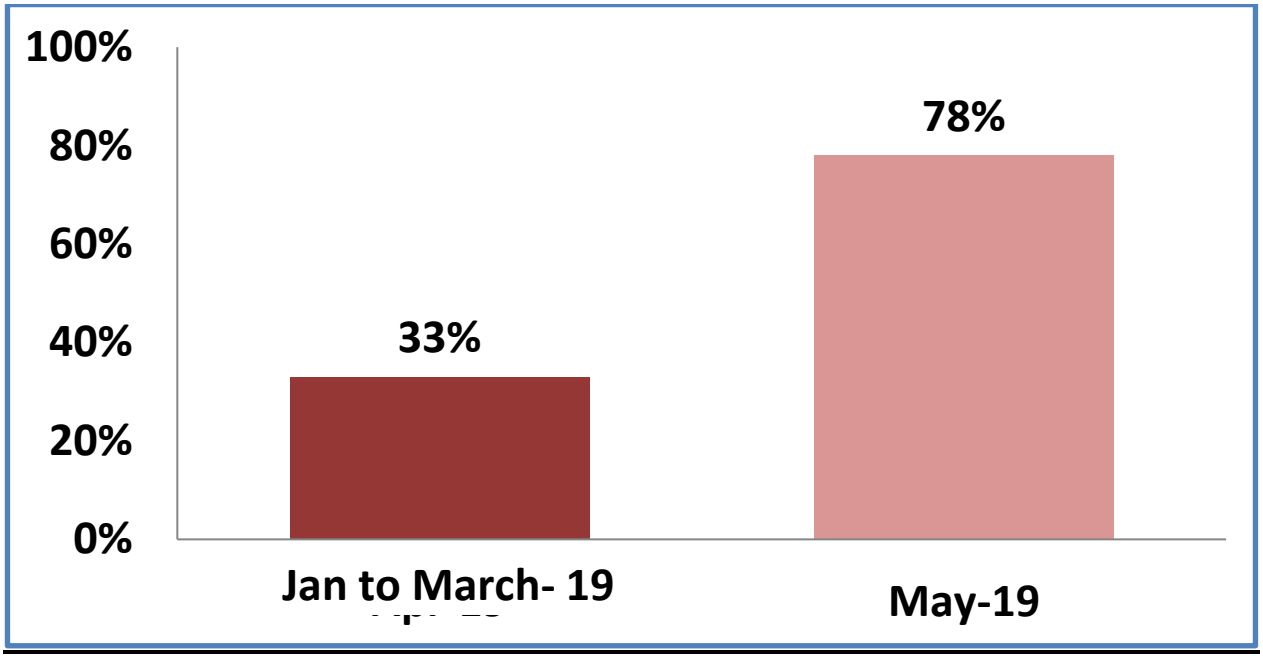
OVERALL REASONS FOR DELAY:

- Delay in Discharge summary
- Room preparedness after discharge for admitting next patient
- Bill preparation
- Pharmacy Clearance
- Nursing Clearance (due to delay in updating Billing activity sheet)

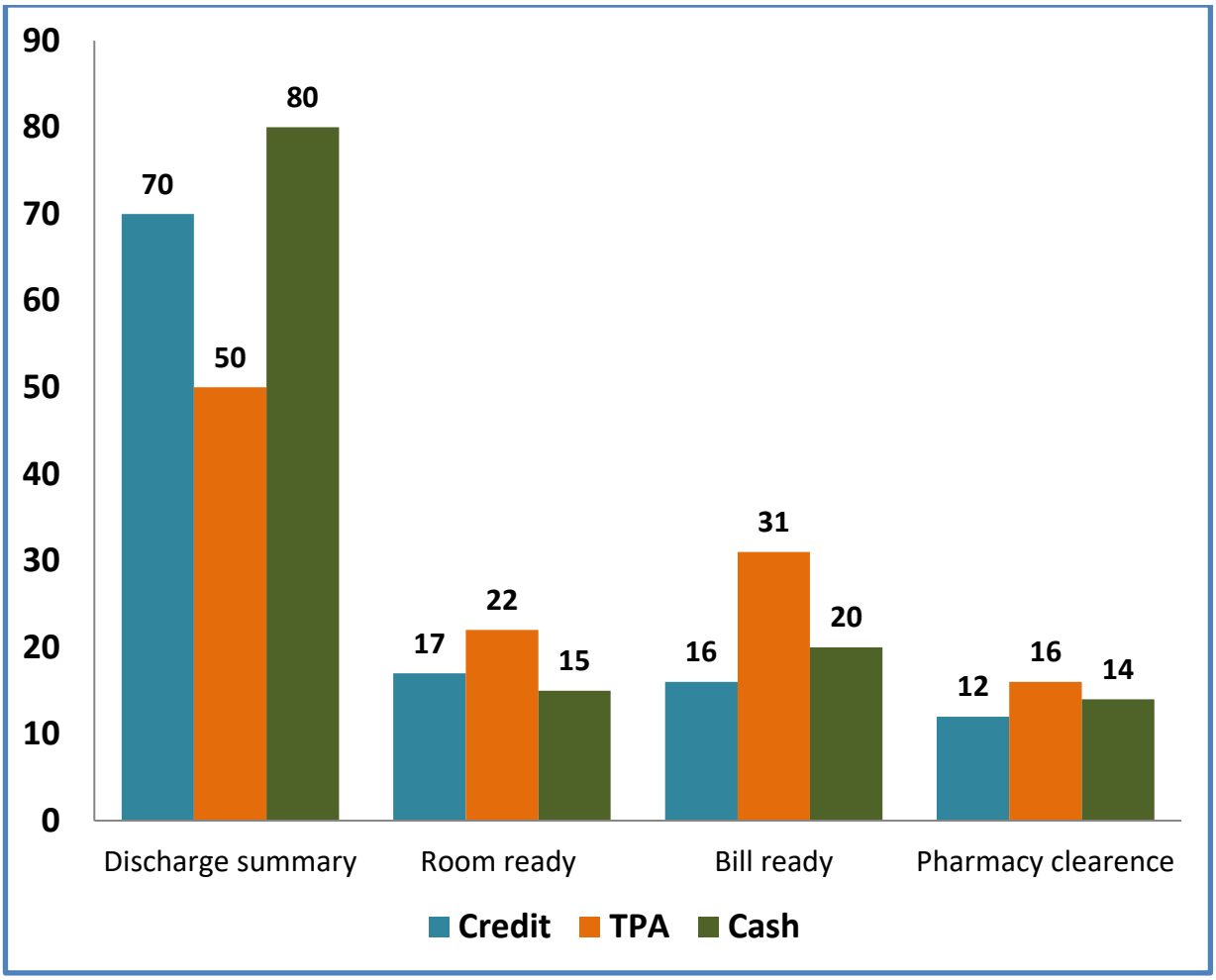
INITIATIVES TO IMPROVE DISCHARGE PROCESS

DISCHARGE PLANNING	
Discharge summary daily update	
Discharge/ LAMA/ MLC/ Death	
Audit checklist	
Tentative list of Discharge Patient	Package patient
	Fixed length of stay for common procedure (out of package patients)
	Tentative discharge after clinical condition/ diagnostic report
	Tentative length of stay documented at the time of admission
	On patient request
Domestic/ International Patient	Discharge checklist as per their discharge requirements
File preparation	Cash/ TPA/ Panel/ MLC
Nursing/ Pharmacy/ Billing clearance	

DISCHARGE PLANNING:



- After intervention of keeping two employees to get involved with the discharge process we have observed again the 100% discharge of the month May 2019. It was seen that the time taken for the discharge summery has been reduced for credit patients from 140 minutes (Jan to March) to 70 minutes (May), for TPA patients reduced from 110 minutes(Jan to March) to 50 minutes and for cash patients reduced from 210 minutes (Jan to March) to 80 minutes (May)
- The time taken for the room ready has been reduced for credit patients from 80 minutes (Jan to March) to 17 minutes, for TPA 52 minutes (Jan to March) to 22 minutes and for cash patients from 45 minutes (Jan to March) to 15 minutes (May)
- The time taken for bill ready has been reduced for credit patients from 30 minutes (Jan to March) to 16 minutes, for TPA 34 minutes (Jan to March) to 31 minutes and for cash patients the time is 20 minutes from Jan to May.
- The time taken for pharmacy clearence has been reduced for credit patients from 20 minutes (Jan to March) to 12 minutes, for TPA 18 minutes (Jan to March) to 16 minutes and for cash patients from 12 minutes (Jan to March) to 14 minutes (May).ss



	Credit	TPA	Cash
Discharge summary	70	50	80
Room ready	17	22	15
Bill ready	16	31	20
Pharmacy clearance	12	16	14

DISCUSSION & LIMITATIONS

DISCUSSION & LIMITATIONS

Delayed discharges can be defined as a condition in which a patients in hospital after his/ her clinical readiness for discharge has been determined by the lead clinician in consultation with all agencies involved in planning that patient's next stage of care. The date on which the patient is judged clinically ready for discharge is the ready for discharge date. (ISD 2000).

Some of the major reasons of delay were found out to be:

Internal- IP Pharmacy related (long time taken for issuing D/s medicines and returning left over medicines, Medication errors, etc); Referral doctor consultation; Late summary preparation; Housekeeping related % Billing related.

External- Patient related (Waiting for attendant, waiting for transport, waiting for lunch, Making financial arrangements etc.

Implementation of Discharge Plan

Strategies to ensure continuity of care (4 C's)

- **C**ommunication
- **C**oordination
- **C**ollaboration
- **C**ontinual reassessment

Limitations of the study

- The study does not throw light on Cost – Benefit Analysis & Patient Satisfaction in respect to delayed discharges and therefore delayed admissions.
- Some of the information for data collection was elicited from staff of the hospital which relied upon their memory.

SUMMARY AND CONCLUSION

SUMMERY AND CONCLUSION

Time and tedious discharge process also contributes to patient dissatisfaction. All the departments involved in the discharge process should adequately work in a team. Through the improvement in their process other hospitals have become successful in reducing the time taken for the discharge process (Fortis Hospital, Gurgaon has reduced the time taken for discharge to 90 minutes.) In this study time taken for the discharge process in Nayati Medicity was analyzed. It was found that the time taken for completion of discharge summery was contributing factor to the most total time taken in the discharge process and it was also observed that the number of planned discharges was less which was also the contributing factor to delay the discharge. By introducing two administrative employs into the discharge process has reduced the number of unplanned patients which has effected the overall reduction in the whole discharge process and also the time taken for completion of the discharge summery has been improved. Hospital administration should carry out frequent audits of all the departments involved with the discharge process and also hospital administration should take the feedback from patients about services including discharge as an outgoing activity. Delayed Discharge process leads to unnecessary bed occupancy, thus affecting both, the existing patients to be discharged and the new admissions in the hospital thereby putting undue pressure on the already strained resources of the hospital. Thus the study helps to bring out the areas which need further improvement and devises a workout plan for the same.

RECOMMENDATIONS

RECOMMENDATIONS:

1. Explain the discharge process to the patients as well as attendant in detail to reduce his/ her unnecessary movement and further delay.
2. Final orders should be taken from Consultant either in evening rounds or over phone like:
    - ❖ Investigations
    - ❖ Cross referrals
    - ❖ Medications
3. HK – Maintain a register of Out time/ In time for ward boys.
4. Put up clear instructions on each billing counter to minimize queries being raised.
    - ❖ Cash Billing
    - ❖ Credit Billing
    - ❖ Cash Deposition Counter
    - ❖ Bill Endorsing Counter
5. Streamlined procedures.
6. Each person to know exact role or actions to be taken at each stage.
7. Discharge is a multifunctional activity so integration of procedure is must.
8. Planned discharge with advance information to the patient.
9. Encourage patients to clear bill periodically to avoid last minute problems.
10. Continuous education, training and feedback to result in regular monitoring of discharge process so that the problem can be ironed out.
11. Continuous monitoring of all discharges on daily basis and display of information or contact detail of the quality department, to both patients and people involved in discharge process.
12. For the cash patients we can take the payment in patient's room only for the satisfaction of the customer or to decrease the discharge TAT.
13. Patient should be reinforced for physical discharge by ward Sisters after final bill settlement so that the waiting time for admissions can be reduced.

ANNEXURES

ANNEXURE 1:

➢ 15th January to 30th March – Overall discharge process observation on each floor and data collect ion as per electronic tracker.
➢ 1st April to 30th April - Overall observation on each floor and simultaneously appointment of two employees from the administration to observe and also to collect data on daily basis to streamlined the discharge process (Intervention has been done in the month of April)
➢ 1st May – 25th May – Overall observation after intervention period, data collection and Analysis.

ANNEXURE 2:

Discharge Process Trackers:

Patient Name	UHID	Discharge Intimation (Date & Time)	Actual discharge (Date & Time)	Discharge summary Ready (Time)	Nursing Clearance (Time)	Pharmacy Return (Time)	Bill ready (Time)	Bill settlement (Time)	Room vacation (Time)

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